

## Mechanical Systems Competency 4.5

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**Competency 4.5** Mechanical systems personnel shall demonstrate a familiarity level knowledge of the Department of Energy/facility contract provisions necessary to provide oversight of a contractor's performance.

### 1. Supporting Knowledge and Skills

- a. Describe the role of mechanical systems personnel in contractor oversight.
- b. Compare and contrast the following:
  - The Department of Energy's expectations of an Management and Operating (M&O) contractor.
  - Management and Operating (M&O) contractor's expectations of the Department of Energy
- c. Discuss the key elements and features of an effective Department of Energy and Management and Operating (M&O) contractor relationship.

### 2. Self-Study Activities (Corresponding to the Intent of the Above Competency)

Below are two web sites containing many of the references you may need.

Web Sites		
Organization	Site Location	Notes
Department of Energy	<a href="http://wastenot.inel.gov/cted/stdguido.html">http://wastenot.inel.gov/cted/stdguido.html</a>	DOE Standards, Guides, and Orders
U.S. House of Representatives	<a href="http://law.house.gov/cfr.htm">http://law.house.gov/cfr.htm</a>	Searchable Code of Federal Regulations

**Read** DOE N 4700.5, *Project Control System Guidelines*, Attachment 2, Project Control System Guidelines, and **scan** Federal Acquisition Regulation (FAR), Amendment 21, Part 970, *DOE Management and Operating Contracts*.

**Read** DOE-STD-1063-93, *Establishing and Maintaining a Facility Representative Program at DOE Nuclear Facilities*, Section 5.1, Facility Coverage and Assignment; Section 5.2, Duties and Responsibilities of a Facility Representative; and Section 5.3, Authority Granted to Facility Representatives. (This reference is used here because its discussion of contractor oversight, though specific to facility representatives, is applicable to all DOE professionals who perform contractor oversight duties.)

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**Read** DOE Order 5700.6C, *Quality Assurance*, Section 9, Requirements, and **scan** 10 CFR 830.120, *Quality Assurance*.

**Read** DOE G-830.120, *Implementation Guide for Use With 10 CFR 830.120, Quality Assurance*, Section 5, Work Processes; Section 7, Procurement; Section 9, Management Assessment; and Section 10, Independent Assessment.

EXERCISE 4.5-A Referring to DOE N 4700.5, *Project Control System Guidelines*, Attachment 2, Project Control System Guidelines; DOE-STD-1063-93, *Establishing and Maintaining a Facility Representative Program at DOE Nuclear Facilities*; and DOE G-830.120, *Implementation Guide for Use With 10 CFR 830.120, Quality Assurance*, what is the DOE professional's role in contractor oversight as it pertains to contract management?

EXERCISE 4.5-B Referring to DOE G-830.120, *Implementation Guide for Use With 10 CFR 830.120, Quality Assurance*, Section 9, Management Assessment, and Section 10, Independent Assessment, what is the purpose of the management and independent assessments in the context of contractor oversight?

**Review** DOE Order 4700.1, *Project Management System*.

NOTE: This Order has been (or is expected to be) canceled upon the expiration of its incorporation into contracts or other agreements. It is presented here because its general content remains applicable.

**Read** *A Guide to Best Practices for Performance-Based Service Contracting*, Office of Federal Procurement Policy, Office of Management and Budget, Interim Edition, April, 1996.

**Read** DOE Acquisition Letter 95-D4, dated April 17, 1995.

EXERCISE 4.5-C How are performance criteria (expectations) developed and the performance requirements transmitted to the contractor?

EXERCISE 4.5-D Explain the role of program/project personnel (other than contracting officer's representatives) regarding the evaluation of contractor occupational safety programs for the cost-plus-award fee process.

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**Read** DOE Order 5480.19, *Guidelines for the Conduct of Operations at DOE Facilities*, Attachment I, Chapter 1, Operations Organization and Administration.

EXERCISE 4.5-E Identify the key elements and features of an effective DOE and operating contractor relationship.

### 3. Summary

The Government Performance and Results Act of 1993 and the National Performance Review mandate an outcome-based approach to performance measurement. In response to these directives, the Performance Measurement Assessment program was developed to provide a “balanced scorecard” on a contracting activity’s performance. The new assessment mechanism employs a results-oriented approach, which pays particular attention to the needs and expectations of customers of the procurement process. This assessment model received its impetus from recent commercial and Federal trends to “find a better way of doing things,” and to emphasize results, rather than process. It empowers the procurement organization to continuously make improvements in performance.

As this study guide is being developed, the DOE contracts management process is in transition to the Performance Measurement Assessment system. At the same time, procurement and administrative functions have traditionally been independent of one another, with each Operations Office deferring to its own methods and guidance documents. Due to these issues, the reader should refer to the references listed and to site-specific requirement and guidance documents and subject-matter experts.

DOE contracts for the management and operation of DOE facilities, the design and production of nuclear weapons, energy research and development, and the performance of other services. These M&O contractors have been selected for their technical and managerial expertise and are expected to bring to bear these technical and managerial skills to accomplish the significant Federal mission(s) described in their contracts with, and work plans approved by, DOE.

As DOE shifts to a Performance-Based Method of contracting, new relationships need to be created with the contractor and different performance-based evaluation methods will need to be developed. Partnering is just one of the methods available.

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Effective relationships between the Department and operating contractors are founded in the site's conduct of operations. The organization and administration of operations should ensure that a high level of performance in DOE facility operations is achieved through effective implementation and control of operations activities. Effective implementation and control of operating activities are primarily achieved by establishing written standards in operations, periodically monitoring and assessing performance, and holding personnel accountable for their performance.

### 4. Exercise Solutions

(Any reasonable paraphrase of each of the following answers is acceptable.)

**EXERCISE 4.5-A** Referring to DOE N 4700.5, *Project Control System Guidelines*, Attachment 2, *Project Control System Guidelines*; DOE-STD-1063-93, *Establishing and Maintaining a Facility Representative Program at DOE Nuclear Facilities*; and DOE G-830.120, *Implementation Guide for Use With 10 CFR 830.120, Quality Assurance*, what is the DOE professional's role in contractor oversight as it pertains to contract management?

**ANSWER 4.5-A** Generally DOE, in accordance with contract provisions, has the "right to inspect the work and activities of the contractor . . . at such time in such manner as it shall deem appropriate," and "to determine project status by analyzing technical, schedule, and cost performance considering potential problems, their impact, and alternative courses of action." With regard to contractor oversight, the DOE professional, as a representative of DOE line management, "ensures that the contractor's facilities are operated safely and efficiently, the contractor's management system is effectively controlling its conduct of operations, and effective lines of communication between DOE and its operating contractors are maintained." To this end the DOE professional:

- Identifies significant differences between planned and actual cost, schedule, and technical activities
- Implements a performance measurement system to identify and analyze problematic areas
- Validates the estimates-at-completion (EAC)

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EXERCISE 4.5-B Referring to DOE G-830.120, *Implementation Guide for Use With 10 CFR 830.120, Quality Assurance*, Section 9, Management Assessment, and Section 10, Independent Assessment, what is the purpose of the management and independent assessments in the context of contractor oversight?

ANSWER 4.5-B The DOE professional should encourage the contractor's management to periodically assess how well their organization's leadership is enabling the organization to meet DOE's requirements and expectations. This assessment should focus on the identification and resolution of systemic and cultural management issues and problems. Similarly, contractor management should establish and implement a method for independent assessment of their organizations, programs, and projects in order to evaluate the performance of work with regard to DOE's requirements and expectations, and toward achieving their own mission and goals. The results of these assessments augment the DOE professional's operational awareness of the contractor and contribute to the reasonable assurance that the contractor is meeting DOE's requirements and expectations.

EXERCISE 4.5-C How are performance criteria (expectations) developed and the performance requirements transmitted to the contractor?

ANSWER 4.5-C Performance Evaluation Plans (PEPs) should clearly delineate and effectively communicate to the contractor's appropriate milestones and performance objectives for the upcoming rating periods. The award-fee criteria for each contract must reflect the Department's restructured objectives, priorities, and focused initiatives. They must be meaningful and challenging objectives, prioritized and weighted appropriately. In establishing these criteria, goals and objectives resulting from Tiger Teams, Technical Safety Appraisals, and other report recommendations should be included.

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Contract administration (including evaluations) should be based on mutual cooperation or “partnering” between DOE and the contractor. Creating a partnership agreement signed by all parties creates a “buy in” to the overall goal of satisfactory performance on time, within budget, and without claims. Partnering can transform an adversarial relationship or attitude into a professional relationship built on trust and cooperation. Contracting parties that have participated in partnering have experienced more timely performance, better cost control, significant reductions in paperwork, and fewer disputes.

**EXERCISE 4.5-D** Explain the role of program/project personnel (other than contracting officer’s representatives) regarding the evaluation of contractor occupational safety programs for the cost-plus-award fee process.

**ANSWER 4.5-D** Program personnel who use the contracting process to accomplish their programs must support the contracting officer in ensuring that:

- Competitive sources are solicited, evaluated, and selected.
- Quality standards are prescribed and met.
- Performance or delivery is timely.
- Schedules, estimated costs, and fees are reasonable.
- Files are documented to substantiate the judgements, decisions, and actions taken.

**EXERCISE 4.5-E** Identify the key elements and features of an effective DOE and operating contractor relationship.

**ANSWER 4.5-E** An effective DOE and operating contractor relationship includes the following features:

- High operating standards established by management
- Communication of operating standards to the working level
- Sufficient resources provided to the operations department
- Ensurance that personnel are well trained
- Close monitoring of performance in operations
- Accountability of workers and their supervisors for their performance in conducting activities